Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended): An apparatus for recording, storing, updating, and retrieving operating, maintenance and repair information relating to an individual component[s] of a turbine engine[s], the individual component comprising at least one part, the [said] apparatus comprising at least one information storage device permanently deployed on at least one individual [engine] component of the engine, the information storage device further comprising:

a) identification information about the at least one part of the engine component stored thereon;

b) at least one updatable data register having data storage capability; said data register referenced by stored identification information of the at least one part and a parameter recorded by said data register;

wherein said information storage device is accessible for at least one of the following:

i) recording and storing maintenance work done when the individual engine component undergoes maintenance;

ii) updating said information storage device when the [a] part is exchanged for a replacement part; and

iii) retrieving recorded and stored information in said information storage device under certain selected conditions.

2. (Original): The apparatus of Claim 1 wherein information in said data register is updated by an engine control system.

3. (Original): The apparatus of Claim 1 wherein information in said data register is stored in said information storage device periodically at certain selected times.

4. (Original): The apparatus of Claim 1 wherein information in said data register is stored and updated in said information storage device each time the engine is stopped.

5. (Original): The apparatus of Claim 1 wherein information can only be added to said information storage device.

6. (Original): The apparatus of Claim 1 wherein said information storage device is capable of storing information over the operating life of an engine component.

7. (Original): The apparatus of Claim 6 wherein the stored information from each data register is permanent.

8. (Original): The apparatus of Claim 7 wherein stored information remains with the engine component for the life of the engine component.

9. (Original): The apparatus of Claim 1 wherein said information storage device is made an integral part of individual engine components.

10. (Original): The apparatus of Claim 1 wherein a plurality of said information storage devices is permanently mounted on a plurality of engine components.

11. (Original): The apparatus of Claim 10 wherein a plurality of said information storage devices on a plurality of engine components is polled to predict future maintenance requirements of the engine.

12. (Original): The apparatus of Claim 1 wherein anti-tampering devices prevent tampering with the data contents of said information storage device.

13. (Original): The apparatus of Claim 1 wherein maintenance activity must be recorded in said information storage device when maintenance is done for the engine to operate.

14. (Original): The apparatus of Claim 1 wherein the information recorded in said information storage device is provided by circuitry on board an engine.

15. (Original): The apparatus of Claim 1 wherein the information recorded in said information storage device is provided by circuitry external to said engine component.

16. (Original): The apparatus of Claim 1 wherein information is supplied to said information storage device from a remote location.

17. (Original): The apparatus of Claim 1 wherein at least one of the following:

a) recorded information

b) stored information

in said information storage device is retrieved from a remote location.

18. (Original): The apparatus of Claim 1 wherein at least one of the following:

a) recorded information

b) stored information

in said information storage device is used to predict future maintenance requirements of at least one engine component.

19. (Original): The apparatus of Claim 1 wherein said information storage device is queried to ensure that contractual requirements are met.

20. (Currently amended): An apparatus for electronically recording, storing, updating, and retrieving operating, repair, and maintenance information relating to an individual component[s] of a gas turbine engine[s], the individual component comprising at least one part, the apparatus comprising at least one information storage device permanently deployed on at least one individual [engine] component, the information storage device further comprising:

a) identification information of the at least one life limited part of the engine component stored thereon;

b) at least one updatable data register having data storage capability for the life limited part[s], said data register referenced by stored identification numbers of the at least one life limited part and a parameter recorded by said data register;

wherein said information storage device is accessible for at least one of the following:

i) recording and storing maintenance work done when the engine component undergoes maintenance;

ii) updating said information storage device with identification information of replacement life limited parts and appropriate settings for at least one data register when a life limited part is changed; and

iii) retrieving recorded and stored information in said information storage device under certain selected conditions.

21. (Original): The apparatus of Claim 20 wherein stored information remains in said information storage device on the engine component permanently.

22. (Original): The apparatus of Claim 20 wherein information in at least one data register is stored in a storage area in said information storage device periodically.

23. (Original): The apparatus of Claim 22 wherein information in at least one data register is stored in said information storage device each time the engine is stopped.

24. (Currently amended): A method for recording, storing, updating and retrieving operating and maintenance information relating to an individual component of a turbine engine, comprising the steps of:

a) providing at least one information storage device permanently deployed on at least one individual engine component;

b) storing identification information about at least one part of the individual engine component in the information storage device;

c) providing at least one updatable data register in the information storage device having data storage capability;

d) referencing each data register with stored identification information of at least one part and a parameter recorded by each data register;

e) operating the engine and recording operating parameter data in at least one data register; and

f) at least one of the following:

i) storing maintenance work done when the engine component undergoes maintenance;

ii) updating the information storage device when a part is exchanged for a replacement part; and

iii) retrieving recorded and stored information from the information storage device under certain selectable conditions.

25. (Original): The method of Claim 24 comprising periodically storing information from at least one data register in a storage area of the information storage device at certain selectable times.

26. (Original): The method of Claim 25 comprising storing information from at least one data register in the information storage device each time the engine is stopped.

27. (Currently amended): A method for electronically recording, storing, updating and retrieving operating and maintenance information relating to an individual component of a gas turbine engine comprising the steps of:

a) providing at least one information storage device permanently deployed on at least one individual engine component;

b) storing identification information about at least one life limited part of the individual engine component in the information storage device;

c) providing at least one updatable data register in the information storage device having data storage capability to record data parameters being measured and place them in a storage area of the information storage device;

d) referencing each data register with stored identification information of at least one life limited part and a parameter recorded by each data register;

e) operating the engine and recording operating parameter data in at least one data register; and

f) at least one of the following:

i) storing maintenance work done when the engine component undergoes maintenance;

ii) updating the information storage device when a part is exchanged for a replacement part; and

iii) retrieving recorded and stored information from the information storage device under certain selectable conditions.

28. (Original): The method of Claim 27 comprising periodically storing information from at least one data register in a storage area in the information storage device at certain selectable times.

29. (Original): The method of Claim 27 comprising keeping stored information in the information storage device on the engine component for the life of the engine component.